CLAIMS

 (amended) A photosensitive resin composition for optical waveguide formation, comprising:

RAT 34 AMON

10

5 (A) a di(meth)acrylate having the structure represented by the following general formula (1):

$$-R^{1}-O$$

$$X$$

$$Y$$

$$O$$

$$R^{1}$$

$$Y$$

$$Y$$

(wherein R^1 is $-(OCH_2CH_2)_m$ -, $-(OCH(CH_3)CH_2)_m$ -, or $-OCH_2CH(OH)CH_2$ -; X is $-C(CH_3)_2$ -, $-CH_2$ -, -O-, or $-SO_2$ -; Y is a hydrogen atom or a halogen atom; m is an integer of 0 to 4);

(B) a mono(meth)acrylate having the structure represented by the following general formula (2):

(wherein R^2 is $-(OCH_2CH_2)_p-$, $-(OCH(CH_3)CH_2)_p-$, or $-OCH_2CH(OH)CH_2-$; Y is a hydrogen atom, a halogen atom, $Ph-C(CH_3)_2-$, Ph-, or an alkyl



group having 1 to 20 carbon atoms; p is an integer of 0 to 4; Ph is a phenyl group);

(C) a photoradical polymerization initiator; and tris(2-acryloyloxyethyl)isocyanurate.

5

2. The photosensitive resin composition for optical waveguide formation according to claim 1, wherein the weight ratio (A/B) of said component (A) to said component (B) is 0.3 to 5.0.

10

3. The photosensitive resin composition for optical waveguide formation according to claim 1 or 2, wherein the total amount of said component (A) and said component (B) in said resin composition is 30 wt.% or higher.

15

4. (amended) The photosensitive resin composition for optical waveguide formation according to any one of claims 1 to 3, wherein the amount added of said tris(2-acryloyloxyethyl)isocyanurate is 10 to 25% by weight.

20

5. The photosensitive resin composition for optical waveguide formation according to any one of claims 1 to 4, wherein the refractive index of the cured product of said resin composition at 25° C and 824 nm is 1.54 or higher.

ART 30 AMOT

10

15

- 6. The photosensitive resin composition for optical waveguide formation according to any one of claims 1 to 5, wherein the glass transition temperature (Tg) of the cured product of said resin composition is 80°C or higher.
- 7. An optical waveguide comprising a core layer, and a clad layer formed by lamination on said core layer, wherein said core layer and/or said clad layer is composed of the cured product of the resin composition of any one of claims 1 to 6.
- 8. A method for manufacturing an optical waveguide, comprising a step of irradiating the resin composition of any one of claims 1 to 6 with radiation via a photomask and curing said resin composition.